DOCUMENT RESUME

ED 113 855 EC 080 089

AUTHOR Ewing, Norma; And Others
TITLE Unresolved Issues Associated with Prescriptive Instruction
PUB DATE 75
NOTE 13p.; Paper presented at the International Federation of Learning Disabilities (Second International Scientific Conference, Brussels, Belgium, January 3-7, 1975)

EDRS PRICE MF-$0.76 HC-$1.58 Plus Postage
DESCRIPTORS Cost Effectiveness; *Diagnostic Teaching; *Evaluation; Exceptional Child Education; *Learning Disabilities; *Task Analysis; *Teaching Methods

ABSTRACT

Pointed out are issues seen as unresolved in the implementation of diagnostic prescriptive teaching methods with learning disabled children. Questioned are the cost effectiveness of the clinical diagnostic process, practical limits of task analysis, and the failure to consider the child's total ecology or life space as a possible cause of the child's learning problem. (DB)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED113855

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION
THIS DOCUMENT HAS BEEN REPRO
DUCED EXACTLY AS RECEIVED FROM
THE PERSON OR ORGA' IZATION ORIGIN
ATING IT. POINTS OF VIEW OR OPINIONS
STATED DO NOT NECESSARILY REPRE
SENT OFFICIAL NATIONAL INSTITUTE OF
EDUCATION POSITION OR POLICY

UNRESOLVED ISSUES ASSOCIATED WITH PRESCRIPTIVE INSTRUCTION

Norma Ewing, Assistant Professor

Lee Joiner, Professor

Richard Brecht, Assistant Professor

Department of Special Education

Southern Illinois University at Carbondale

1975

A paper presented at the 1975 International Federation for Learning Disabilities Conference, Brussels, Belgium.

EC080089

The prevention and treatment of chronic school failure has been a serious educational problem in countries that have established mass, formal educational programs.[1] Educators have long recognized the role of extra-personal variables, such as curricula, methods and materials, and parent and teacher expectations in deterring pupil skill development. But recently, attention has been focusing on intrinsic variables such as specific learning disabilities, that are thought to inhibit the acquisition of basic academic skills. Recognition of specific intrinsic variables that tend to increase the probability of school failure has produced a reexamination of instructional programs with attempts to redesign them to be more responsive to individual differences.

In attempting to redesign an educational system more sensitive to individual differences, educators have adapted teaching strategies and materials to meet the needs of varying groups of pupils exhibiting "atypical" behaviors. A more recent trend in the education of "atypical" children, particularly those often labeled "learning disabled", has been to ascribe to an educational model commonly referred to as diagnostic-prescriptive teaching.

The diagnostic-prescriptive teaching approach is based on a "psychoeducational" evaluation which provides specific assessment of intraindividual behaviors thought to be related to academic skills acquisition. The resulting educational evaluation is systematically matched with educational procedures referred to as "prescriptions". Such prescriptions are considered educational treatment programs designed to effect favorable changes.

Although diagnostic-prescriptive teaching is commonly referred to as an "educational model", it contains elements of the quasi-medical orientation

which has plagued special education historically. One of the more serious dangers is that diagnostic-prescriptive models provide us with a false sense of knowing exactly what the problem is and what to do to solve it. The preoccupation with assessment and the mechanics of behavior monitoring which commonly accompany the use of this approach is reminiscent of the preoccupation with etiology and classification which was visible in special education for a number of years.

In medicine, diagnosis is what is performed by the physician to determine whether or not a physiological disorder exists and its exact nature. In performing diagnosis, the physician uses reports by the patient of symptoms, superficial direct examination or observation, instrumentation, and sophisticated test procedures. In most instances diagnostic procedures reveal directly the condition of the organism. The problem is circumscribed, confined to an organ or system, and has a typical life-history. False-positive and miss rates have been determined for most medical diagnostics. A very limited number of prescriptions are compatible with the diagnosed condition, and typically, a great deal of cooperation by the patient is not required to effectuate a cure.

So there are some important differences between what prevails in medical diagnosis and educational diagnosis. First, as has been argued in the field of psychiatry recently, accurate diagnosis may be impossible to conduct as an activity independent of the treatment itself.[2] Diagnosis might be better considered a concomitant of the teaching process rather than a prior and separate activity around which instruction is woven. Contrasting this view, diagnostic-prescriptive applications use intermittent rather than continuous diagnosis and the time-span between diagnosis is

typically at least six months.

Although, whether it is advisable to separate the diagnostic process from the teaching process is an important unresolved issue to be considered by professionals, separating seems to be what we are doing. Diagnosis and prescription is becoming a status laden activity engaged in by individuals with more and different "training" than classroom teachers. These persons do not engage in long term direct teaching. Effectuating prescriptions is left to classroom teachers.

The diagnosis-prescription-teaching paradigm now being advocated for use in the school further diverges from the medical model in that the person responsible for the diagnosis and prescription evades responsibility for the treatment. Obviously, treatment is "where it's at", but diagnostic-prescriptive approaches rarely put anything special there. Emphasis is upon diagnostic sophistication, while diagnosticians complain about the lack of success and follow-up by classroom teachers.

Like most educational procedures, the diagnostic-prescriptive teaching approach is perhaps easier to articulate than to implement from a comprehensive as well as practical standpoint. Not everyone even agrees that the diagnostic-prescriptive process is currently possible to implement in an effective and efficient manner. For example, Blanco (1972) states:

> "One of the greatest deficiencies in the profession of school psychology and related disciplines is the paucity of prescriptions and psychoeducational recommendations to aid exceptional children and those handicapped in school. Although psychologists and related professionals often possess remarkable expertise in diagnosis, they frequently have considerable difficulty in formulating treatment plans to alleviate the problems they have diagnosed. It does not necessarily follow that accurate diagnosis elicits appropriate recommendations. Too often the prescriptions offered are stereotyped, non-individualized, and irrelevant."[3]

These are a few of the basic issues and problems associated with the diagnostic-prescriptive model. The remainder of the paper will focus on the very practical matter of the cost-effectiveness aspects of diagnostic-prescriptive approaches. Cost-effectiveness problems are likely to become a major deterrent to realistic, effective and efficient programming.

Cost-Effectiveness Associated With Diagnosis

Within the psychoeducational design, a fairly extensive clinical diagnosis must occur to pinpoint the strengths and weaknesses of a student. Within such a framework, one has to consider whether or not the results will be effective enough to warrant the expenditure.

The time spent in conducting a diagnosis will vary with the individual, but will typically require numerous hours and involve a number of professionals from various disciplines. Combine the time spent in actual psychoeducational evaluation and time spent in "writing-up" the results from each diagnostic instrument, and the result is a vast amount of time consumed just administering tests and making observations. No conclusions nor recommendations have yet been formulated. Such interpretations and projections are reserved for a multidisciplinary staffing in most instances, which require an additional one or two hours, possibly more.

Following the staffing, the entire case has still to be articulated in written form with recommendations for dissemination of information to administrators and teachers charged with the responsibility of implementing an appropriate educational program for the child. Yet, not one bit of remediation has been executed.

The above implicate the extensive amount of time and the large number of professionals that might be involved in just diagnosing in preparation for developing prescriptions. Converting this amount of time into dollars and cents produces staggering figures. It is quite possible that a single diagnosis can cost a school system several hundred dollars. This seems to be a bit overwhelming for one diagnosis, but if such activities can possibly affect the life of one child significantly, many educators relate positively to such an expenditure. The excruciating aspect evolves when educators realize that after all of the time spent diagnosing the problem and developing the remedial program, one can not be absolutely sure that the remedial procedure suggested will be effective. One of the reasons that prescriptions are hard to write is that there is a lack of direct correspondence between a particular educational problem and a remedial procedure. Remedial procedures are elusive; unlike a pill, they behave differently in the hands of different people. Even when sensibly and consistently employed, educational prescriptions do not work consistently well from client to client.

Meticulous Learner Profiling and Diagnostic Efficiency

After administering any number of a series of test instruments, the psychometric data obtained must then be ordered so as to provide an indepth awareness of the learner's specific behaviors. The examiner must then construct a profile of basic educational and psychological abilities of the pupil in order to obtain direction in preparing the educational prescriptions. The wide battery of instruments can create a problem because of the multitudinous amount of information generated. It is difficult to order

the "bank" of information in a way that is pertinent and useful. Prescriptions developed as a result of the intense profiling are often so numerous and highly individualistic that it is often impossible to implement the prescription on a minute or hourly basis, as is often necessary, except on a one-to-one teacher pupil ratio. Information glut becomes as obstructing as information void in our attempts to put together a diagnostic-teaching strategy. The splitting apart of the diagnostic-prescriptive and teaching roles referred to before is dangerous, but even more so when an incomprehensible, undigested, mass of observations, scores, and techno-trivia is presented to the teacher with notification to "here it is, do it."

Undoubtedly, there is a parameter marking the lower bounds and upper bounds of "pieces of diagnostic information" that can be assimilated by a teacher and put to useful work. The weight of the pupil folder should provide us with one gross measure. What we are likely to find is that the utility of the diagnostic information rises with the weight of the folder until it reaches such a size that it becomes undigestible, its utility index then decreasing with the addition of information.

Diagnosis Recycling Can Be Endless-Useless

How much diagnosis is enough? Questions of this type plague diagnosticians because unlike physicians who deal with a limited number of disorders in any single case, the educational diagnostician may encounter many areas of deficit. In fact, the number of deficits noted in any given case will be directly related to the number of observations made or tests administered. Administering more tests generally results in the detection of more problems.

This phenomenon is explained in part by the fact that aptitudes, abilities, skills, proficiencies, and sensitivities are not absolutely independent. They share variance; they are correlated. The presence of some problems is likely to be followed by the detection of others if diagnosis is expanded. Perhaps the most defensible strategy for formulating a diagnosis would be to look to some validated theory of human abilities, select instruments that represent the major dimensions, and proceed to compile a diagnostic profile based on a representative sample of the whole. For example, if Guilford's Structure of Intellect was selected as the theoretical organizations, tests representing important intellectual abilities would be administered to all referrals. However, there is no consensus among psychologists regarding the structure of human abilities. Each diagnostician is free to use a variety of instruments which may or may not be related to one another. Lack of an organizational framework for viewing human abilities results in a loose ecclecticism which is idiosyncratic to the individual practitioner.

Although we cannot answer the rhetorical question of how much diagnosis is enough, we can respond that more is not necessarily better. Of course, one of the difficulties with ecclecticism is that the number of observations that can be added to a diagnosis is infinite. There is always room for that one additional bit of information.

Practical Limits for Task Analysis

Operating under the assumption that we need to know the progression of skills necessary to perform a given task before the task can be effectively taught in a prescribed manner, educators have developed what is

appropriately entitled "task analysis". Most programs which supposedly operate from the diagnostic-prescriptive model employ task analysis to some degree. The philosophy is defensible, but once more, the difficulty comes with the attempt at implementation.

To develop a complete task analysis on any particular operation can be, and often is, a monumental chore. Consider for a moment all of the requisite skills necessary to draw a square. This can be mind boggling. Newell C. Kephart, in his book, The Slow Learner in the Classroom, discusses the skills necessary for one to be able to reproduce a square. The learner must maintain a certain postural adjustment and manipulate tensions in various muscle groups in order to maintain a sitting position; sit on a chair, at a table or desk; move fingers, hand, wrist, and arm in a coordinated fashion; distinguish between left and right; locate the beginning point; make right, left differentiation; know where to stop; use appropriate eye movements; execute appropriate dexterity of the fingers, wrists, arms, shoulders and grasp mechanisms; deal with separate lines and angles in an integrated fashion; develop the contour, maintain the figureground relationship, and differentiate the various parts of the figure.[4] Each of these specified skills, according to Kephart, are necessary skills needed prior to attempting to draw a square. Now let's move from what is essentially a motor task to a more cognitive task -- telling time. Think for just a moment of the requisite skills a pupil must acquire before learning to tell time. One might agree that the list would be long, and that it would take a considerable amount of time to develop specific tasks in an ordered manner. Convert this amount of time into dollars and cents, and one can see that task analysis is an expensive procedure.

Life-Space Ignored in Diagnostic Approach Can Be Costly

Another major problem with the present diagnostic process relates to the inability or unwillingness of programmers to perceive aspects in the child's total ecology as causative agents or as possibly sustaining problems relating to the child's learning problem. During testing observation, we learn a great deal about the child's psychoeducational behaviors but do not always consider the child in his total life space. There are many times that the etiology of a specific problem is not within the individual himself, but rather in his interactions with his social and physical environment. Consider the child who is referred for diagnosis because of distractibility and acting out behavior, but when observed in the clinical setting exhibits no such behavior. The problem in this case is that we are not afforded the opportunity to view the child in his total environment to ascertain exactly what causal or contributing factors exist. We learn a great deal about the child in isolation, but fail to take into account the child's total life space and the factors that exist which are contributory factors to the problems identified through clinical diagnosis. It appears to the writers that for an effective diagnosis to occur, the child's environment, as well as the child himself, must be considered. The effectiveness of such a practice is beyond mere speculation and additional cost would be nevertheless intermingled.

Summary

This paper has attempted to focus on a number of unresolved issues related to diagnostic-prescriptive teaching. Though the overtone of the paper might appear unsupportive of the diagnostic-prescriptive teaching approach,

elimination of the total educational model is not suggested. On the other hand though, perhaps educators attempting to develop "responsive" educational paradigms for "atypical" learners might focus on the particular issues and respond by implementing more "digestible" and/or utilitarian programming.

References

1. Sabatino, David and Hayden, David. "Prescriptive Teaching in a Summer Learning Disabilities Program." J. Learning Vol. 3, No. 4, April, 1970. Pp. 41-47.

2. Levitt, Morton and Langsley, Donald. "The Education of Psychiatrists." Change, September, 1974, pp. 30-35.

3. Blanco, Ralph F. Prescriptions for Children with Learning and Adjustment Problems. Charles Thomas Publishers, Springfield, Illinois, 1972.

4. Kephart, Newell C. The Slow Learner in the Classroom, Charles E. Merrill Publishing Company, Columbus, Ohio, 1960.